







Draft Environmental Assessment City of Elkader Lift Station and Piping Elkader, Iowa January 27, 2009



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ABBREVIATIONS AND ACRONYMS

CEQ Council on Environmental Quality

CFR Code of Federal Regulations

EA Environmental Assessment

EO Executive Order

ESA Endangered Species Act

FEMA Federal Emergency Management Agency

FIRMS Flood Insurance Rate Maps

FPPA Farmland Protection Policy Act

NEPA National Environmental Policy Act

NFIP National Flood Insurance Program

NHPA National Historic Preservation Act

NPDES National Pollutant Discharge Elimination System

NRCS Natural Resources Conservation Service

NRHP National Register of Historic Places

ROI Region of Influence

USACE U.S. Army Corps of Engineers

USFWS U.S. Fish and Wildlife Service

1. INTRODUCTION

The city of Elkader is located in the North-East portion of the state of Iowa and is the seat of Clayton County. On June 15th 2008, a portion of the City of Elkader's sewer line and the entire city of Elkader, Iowa experienced substantial damage from the flooding of the Turkey River which flooded most of the City of Elkader. During the storm event, floodwaters of the Turkey River eroded and washed away approximately 750 feet of an 8 inch gravity sewer line that crossed under the Turkey River. The damage to the gravity sewer line caused raw sewage to discharge directly into the Turkey River from residential and commercial buildings on the west side of the Turkey River in the City of Elkader.

On May 27, 2008, President Bush declared a major disaster in the State of Iowa (DR-1763-IA) pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. Section 5121-5206. The incident period began on May 25, 2008 and closed August 13, 2008.

The city of Elkader received a grant from the Federal Emergency Management Agency (FEMA) through the lowa Homeland Security and Emergency Management Division to realign and install the sewer line for the damaged portion as an emergency action. Figure 1 shows the west bank of the Turkey River and the new alignment of the sewer line along with the proposed lift station in the engineer's drawings. (Figures are located in Appendix A.) FEMA has already provided funding for a temporary pump system.

The National Environmental Policy Act (NEPA) requires that Federal agencies evaluate the environmental effects of their proposed and alternative actions before deciding to fund an action. The President's Council on Environmental Quality (CEQ) has developed a series of regulations for implementing the NEPA. These regulations are included in Title 40 of the Code of Federal Regulations (CFR), Parts 1500–1508. They require the preparation of an Environmental Assessment (EA) that includes an evaluation of alternative means of addressing the problem and a discussion of the potential environmental impacts of a proposed Federal action. An EA provides the evidence and analysis to determine whether the proposed Federal action will have a significant adverse effect on human health and the environment. An EA, as it relates to the FEMA program, must be prepared according to the requirements of the Stafford Act and 44 CFR, Part 10. This section of the Federal Code requires that FEMA take environmental considerations into account when authorizing funding or approving actions. This EA was conducted in accordance with both CEQ and FEMA regulations for the NEPA.

This EA will address the environmental issues associated with the following constructing the new lift station and connecting it to the existing sanitary sewer manhole and the pipeline installed beneath the Turkey River. See Figure 2 for project location.

2. PURPOSE AND NEED

Pursuant to Section 406 of the Robert T. Stafford Disaster and Emergency Assistance Act of 1988, as amended, the city of Elkader has requested funding through FEMA Public Assistance Program. FEMA's Public Assistance Program provides supplemental Federal disaster grant assistance for the repair, replacement, or restoration of disaster damaged, publicly owned facilities.

The purpose of this project is to assist the Elkader residents in their recovery from the natural disaster by using the FEMA Public Assistance Program to fund the construction of a lift station and pipelines to connect it to their existing system. This federal action will prevent the discharge of untreated sewage into the Turkey River.

The need for the project is to build a new lift station in response to a devastating flood that struck the City of Elkader, Clayton County, Iowa, between June 8th and 17th, 2008 with a record crest on June 10th. The City of Elkader needs to ensure the health and safety of its residents by providing key services. A functional, safe, reliable, and cost-effective sewage system is a critical element of this mission. From mid-June 2008 to present, the City of Elkader had to pump its sewage under the Turkey River using a temporary pumping system. Under an emergency work grant, the applicant completed an emergency protective measure temporary repair to eliminate the discharge of the raw sewage in to the Turkey River until a final permanent repair could be made. If the Elkader lift station is not built, the basic health and safety requirements would not be maintained the same as before the flood.

3. ALTERNATIVES

NEPA requires the investigation and evaluation of reasonable project alternatives as part of the project environmental review process. Two alternatives are addressed in this EA: the No-action Alternative, where FEMA would not fund a new Elkader Sewer Pipeline and Lift Station, and the Proposed Action, where FEMA would relocate the sewer pipeline and build a new Lift Station in Elkader, Clayton County, Iowa. The discussion includes Alternatives Analyzed and Dismissed.

3.1 NO-ACTION

Under this alternative, the City of Elkader will continue to use the temporary pumping system, which is currently located at 103 Bronson Street, to pump the sewage from the west side of Elkader under the Turkey River.

The temporary pump is sensitive to temperature and freezing conditions. A typical lowa winter and weather conditions could cause the temporary pump to freeze up and result in raw sewage backing up on the west side of the City of Elkader.

3.2 PROPOSED ACTION: ADDITION OF NEW LIFT STATION AND PIPING

This alternative provides a new City of Elkader sanitary sewer pipeline connection and lift station. This alternative would construct the following:

- Construction of the new lift station located at 101 and 103 Bronson Street (Latitude 42.85113°, Longitude -91.40075°).
- Installation of 90 feet of 15 inch ductile iron gravity flow pipeline to connect it to an existing sanitary sewer, and
- Installation of 40 feet of 8 inch ductile iron force main pipeline to connect the new lift station with the pipeline installed under the Turkey River under the emergency action.

The lift Station will be designed in accordance with the "Iowa Wastewater Facilities Design Standards", Chapter 13 in conjunction with Chapter 40 of the 2004 edition of the "Recommended Standards for Wastewater Facilities" by the Great Lakes – Upper Mississippi River Board of State and Provincial Public Heath and Environmental Mangers and commonly called "Ten States Standards". Construction will include a standard valve vault and vacuum/air release manhole at an elevation 1 foot about the 2008 disaster record flood level.

The connecting pipelines will be installed according to standard and accepted construction practices.

The City of Elkader will contract the permanent work to MSA Consultant due to their involvement in city sewage system renovation plans prior to the disaster. The construction is anticipated to start in the 4th quarter of 2008 with completion in the 1st quarter of 2009.

3.3 ALTERNATIVE CONSIDERED AND DISMISSED: REPLACE IN KIND

Due to the erosion from the flood event, the current bottom of the Turkey River is below pre-disaster elevation which, physically, does not allow the gravity flow line to be replaced in kind. In design, for the for the sewer pipeline to drain by gravity, the pipeline would need to be installed deeper, at an elevation of 690 with 2 feet of cover (the main lift station for the City of Elkader is at a depth of 688). Two feet of operational depth will not allow the pumps with the main lift station to operation properly and would result in a design that is not code compliant. Due to this, FEMA is required to complete the permanent repair.

4. SUMMARY OF IMPACTS AND MITIGATION

Two alternatives were evaluated in this EA:

- No-action Alternative
- Proposed Action

Table 4-1 summarizes the potential environmental impacts expected with each of the two alternatives. Additional information is located in Section 5.

As shown in table 4-1, the No-action Alternative could result in significant environmental impacts on the environment if the temporary pumping system freezes which may cause a discharge of untreated sewage into the Turkey River.

As shown in table 4-1, the selection of Proposed Action would result in insignificant environmental impacts from the temporary increase in noise and the production of fugitive dust during construction.

Table 4-1: Summary of Impacts and Mitigation

Environmental	No-action	Proposed Action
Resource		
Air Quality	No impact	Fugitive dust would result from all construction activities; the project would be of short duration and would not require large amounts of heavy equipment; best management practices would be implemented
Biological Resources	No impact	No impact; in the event that threatened or endangered species are observed in the project area, the FEMA Regional Environmental Officer shall request a Section 7 consultation with the USFWS
Executive Order 11990/Wetlands	No impact	No significant impact; best management practices would be used to protect wetlands during construction. If required, a Section 404 permit from USACE would be obtained
Threatened and or Endangered Species	No impact	No impact; in the event that threatened or endangered species are observed in the project area, the FEMA Regional Environmental Officer shall request a Section 7 consultation with the USFWS
Geology and Soils	No impact	No significant impacts; construction activities would clear existing vegetation and expose soil in the area proposed Elkader Lift Station and pipeline connections
Land Use and Planning	No impact	No impacts. Approximately .75 acres of land was purchased for use as the Elkader Lift Station. The land is currently zoned residential
Noise	No impact	Construction activities would increase the noise levels in the immediate area of the construction project; activities are assumed to take place during daylight hours and no sensitive noise receptors are located near the project area
Executive Order 12898, Environmental Justice	No impact	Implementation of this alternative would have little likelihood of having disproportionate impacts on any low-income or minority groups
Transportation	No impact	Flagmen and possibly escort vehicles would be utilized; construction the Elkader Lift Station would temporarily disrupt local traffic within the project area
Water Quality/Water Resources	If the temporary repair were to fail and raw sewage was discharged into the Turkey River the water quality would be affected and the NPDES permit for the City of Elkader would be violated	Implement construction best management practices. Install silt fences/straw bales to reduce soil erosion and sedimentation. Construction contractor to implement requirements of NPDES storm water discharge permit, if required.
Cumulative Impacts	No impact	Designing and constructing public infrastructure such as the Elkader Sewer Pipeline and Lift Station is a necessary and needed service for the citizens of Elkader and Clayton County.

Notes:

NPDES

National Pollutant Discharge Elimination System U.S. Army Corps of Engineers U.S. Fish and Wildlife Service **USACE USFWS**

5. AFFECTED ENVIRONMENT AND IMPACTS

Chapter 5 describes the existing environmental conditions that may be affected by the proposed construction of a new Elkader Lift Station and connecting pipelines. The environmental impacts of the No-action alternative were also analyzed.

This chapter also describes the potential environmental consequences of the proposed alternatives by comparing them with the potentially affected environmental components. Proposed activities were also evaluated against existing environmental documentation on current and planned actions and information on anticipated future projects to determine the potential for cumulative impacts. The potential for significant environmental consequences was evaluated utilizing the context and intensity considerations as defined in CEQ regulations for implementing the procedural provisions of NEPA (40 CFR 1508.27).

5.1 AIR QUALITY

The National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency define the allowable concentrations of pollutants that may be reached but not exceeded in a given time period to protect human health (primary standard) and welfare (secondary standard) with a reasonable margin of safety. These standards include maximum concentrations for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter with a diameter of 10 microns or less.

The nearest Air Quality Monitoring System location is in Backbone State Park in Delaware County approximately 45 miles away and is administered by the Iowa Department of Natural Resources. Clayton County is considered an attainment area for all criteria pollutants listed above. Air quality in the project and the surrounding area currently complies with Federal and State air quality standards as indicated by the entire state of Iowa being within an Air Quality Attainment Area.

5.1.1 NO-ACTION

The No-action Alternative would not affect air quality. No construction activities would occur with the selection of the No-action Alternative.

5.1.2 PROPOSED ACTION

The Proposed Action would require the excavation of soil for the construction of the Elkader Lift Station and connecting pipelines, which would result in the production of some fugitive dust. Best management practices would be utilized during construction to minimize dust. The proposed project would require approximately 2 months of construction and some heavy equipment including bulldozers, scrapers, and backhoes.

Construction activities would produce a minor, temporary, and localized impact from vehicle emissions and dust particles. Equipment use would temporarily increase emissions; however, no long-term air quality impacts are anticipated. Federal or state air quality attainment levels would not be exceeded. Based upon this information, there would be minimal impacts to air quality due to the implementation of the Proposed Action.

5.2 BIOLOGICAL RESOURCES

Native or naturalized vegetation, wildlife, and the habitats in which they occur are collectively referred to as biological resources. Existing information on plant and animal species and habitat types in the vicinity of the proposed site was reviewed with special emphasis on the presence of any species listed as threatened or endangered by Federal or State agencies to assess their sensitivity to the effects of the alternatives.

Biological studies consisting of literature review, field reconnaissance, agency consultation, and map documentation were performed. A site visit was conducted on December 5, 2008. For the purpose of discussion, biological resources have been divided into the areas of protected species and habitats.

5.2.1 PROTECTED SPECIES AND HABITAT

The Endangered Species Act (ESA) of 1973 establishes a Federal program to conserve, protect, and restore threatened or endangered plants and animals and their habitats. ESA specifically charges Federal agencies with the responsibility of using their authority to conserve threatened or endangered species.

All Federal agencies must ensure any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction of critical habitat for these species. During the field survey of December 5, 2008, the following list and description of threatened or endangered species that may occur in Clayton County was produced.

Table 5-1: Threatened and Endangered Species of Clayton County, Iowa

			Potential Occurrence at	
Common Name	Scientific Name	Status	Site	Reason
Higgins eye pearly mussel	Lampsilis higginsi	Endangered	No	No habitat
Bald Eagle	Haliaeetus leucocephalus	Threatened	No	No habitat
Sheepnose	Plethobasus cyphyus	Candidate	No	No habitat
Spectaclecase	Cumberlandia monodonta	Candidate	No	No habitat
lowa pleistocene snail	Discus macclintocki	Endangered	No	No habitat
Northern wild monkshood	Aconitum noveboracense	Threatened	No	No habitat
Western prairie fringed orchid	Platanthera praeclara	Threatened	No	No habitat
Prairie bush clover	Lespedeza leptostachya	Threatened	No	No habitat

5.2.1.1 NO-ACTION

The No-action Alternative would not impact vegetation or wildlife in the project area. No construction activities would occur with the selection of the No-action Alternative.

5.2.1.2 PROPOSED ACTION

The proposed construction of the Elkader Sewer Pipelines and Lift Station effect on threatened and endangered species has been determined to be "no effect". No remaining native habitats are present

on the site as the site had been utilized as residential homes for the past 105 years. The pipelines will be installed in areas that have been previously disturbed.

FEMA reviewed lists from both U.S. Fish and Wildlife Service (USFWS) and the lowa Department of Wildlife and Parks for threatened and endangered species with potential to occur in Clayton County. It was determined from documentation review and a field survey of the project that threatened or endangered species identified as having potential to occur in Clayton County were not frequent to the area. In the event that threatened or endangered species are observed in the project area, the FEMA Regional Environmental Officer shall request a Section 7 consultation with the USFWS.

5.3 CULTURAL RESOURCES

In addition to review under NEPA, consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended and implemented by 36 CFR Part 800. Requirements include the identification of significant cultural resources that may be impacted by the alternatives. Cultural resources are prehistoric and historic sites, structures, districts, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons.

Only those cultural resources determined to be potentially significant under NHPA are subject to protection from adverse impacts resulting from an undertaking. To be considered significant, a cultural resource must meet one or more of the criteria established by the National Park Service that would make that resource eligible for inclusion in the National Register of Historic Places (NRHP). The term "eligible for inclusion in the NRHP" includes all properties that meet the NRHP listing criteria, which are specified in the Department of Interior regulations Title 36, Part 60.4 and NRHP Bulletin 15. Sites not yet evaluated may be considered potentially eligible for inclusion in the NRHP and, as such, are afforded the same regulatory consideration as nominated properties. Whether prehistoric, historic, or traditional, significant cultural resources are referred to as "historic properties."

For the purposes of this analysis, the term region of influence (ROI) is synonymous with the "area of potential effect" as defined under cultural resources legislation. In general, the ROI for cultural resources at each alternative's site encompasses areas requiring ground disturbance (e.g. areas of grading, cut and fill, etc) associated with the proposed development of the Elkader Lift Station.

According to the Iowa State Historic Preservation Office, there are no known structures within the area of potential effect. According to the Iowa State Historic Preservation Office, there are known archaeological sites within the project site of the Proposed Action.

5.3.1 ARCHEOLOGICAL

5.3.1.1 NO-ACTION

The No-action Alternative would not impact vegetation or wildlife in the project area. No construction activities would occur with the selection of the No-action Alternative.

5.3.1.2 PROPOSED ACTION

A Phase I archeological investigation was completed on 23 January, 2009. The Phase I study determined that there are no archaeological resources within the project area.

The proposed site represents a substantially mixed and disturbed deposit of historic and recent refuse relating to a late nineteenth to early twentieth century farmstead as well as a more recent house that was demolished in 2008. Based on these observations, the historic deposits on Site 13CT367 are not considered eligible for the National Register of Historic Places.

Overall, the subsurface testing demonstrated that the project area is underlain by as much as 3 meters of recent alluvial deposits with some areas covered by a surficial layer of disturbed fill. No indications of buried soils were noted in any of the tests. The project area exhibits a gentle slope to the southeast, toward the river. Subsurface stratigraphy varied from test to test but a generally consistent trend was noted. While sandy and loamy sediments were found throughout the project area, finer textured massive silty strata were mostly limited to the higher, western area.

The project area is set inside the upstream head of a large sweeping bend in the adjacent Turkey River. The horizontal variation in sediment texture noted above is fully consistent with the deposits laid down as a river progressively builds up a point bar deposit while the stream channel migrates outward. This being the case, the possibility for any intact prehistoric cultural deposits is extremely low, and indeed, no paleosols were noted in any of the 19 subsurface tests.

The proposed project would require approximately 2 months of construction and would require the use of some heavy equipment including a bulldozer, scraper, and a backhoe. If during the course of construction activities, cultural resources (particularly human remains) are unexpectedly discovered activities would cease in the immediate area and the lowa State Historic Preservation Officer and the FEMA Regional Environmental Officer would be notified before work would continue.

5.3.2 HISTORIC

5.3.2.1 NO-ACTION

The No-action Alternative would have no significant effect on cultural resources within the project area. No construction activities would occur with the selection of the No-action Alternative.

5.3.2.2 PROPOSED ACTION

The proposed action would have no significant effect on historic resources within the project area. The proposed project would require approximately 2 months of construction and would require the use of some heavy equipment including a bulldozer, scraper, and a backhoe. Although no historic properties have been identified within the ROI, if during the course of activities, cultural resources (particularly human remains) are unexpectedly discovered, activities would cease in the immediate area and the lowa State Historic Preservation Office and the FEMA Regional Environmental Officer would be notified before work would continue.

5.4 GEOLOGY AND SOILS

The topography of the proposed Elkader Lift Station and pipeline sites is flat with a few lower depressions. Information from the U.S. Department of Agriculture Natural Resources Conservation Service shows that three soil types are present on the site. Soils found at the proposed Elkader Lift Station project area are Ankeny fine sandy loam, Dorchester silt loam, and Caneek silt loam. The symbols that accompany the soil descriptions correspond with those found on the Soils Survey Legend of the Soil Survey of Clayton County, lowa. Ankeny fine sandy loam is found with 0 to 2 percent slope. The Ankeny series consists of very deep well drained soils formed in alluvium or eolian

sediments. These soils are on base slopes, alluvial fans, high flood plains, and on treads and risers on stream terraces. Dorchester silt loam is found with 0 to 2 percent slope. This very deep, well drained and moderately well drained soil formed in recent, calcareous, stratified alluvium. These soils are on narrow flood plains of small streams that have limestone bluffs on the nearby slopes. Caneek silt loam is found with 0 to 2 percent slope. This very deep, somewhat poorly drained and poorly drained soil formed in 50 to 102 centimeters (20 to 40 inches) of stratified, calcareous, silty alluvium and in the underlying silty alluvium. These soils are on low stream terraces and floodplains. (U.S. Department of Agriculture, 1986).

The Farmland Protection Policy Act (FPPA) was enacted in 1981 (P.L. 98-98) to minimize the unnecessary conversion of farmland to nonagricultural uses as a result of Federal actions. In addition, the act seeks to ensure that Federal programs are administered in a manner that will be compatible with State and Local policies and programs that have been developed to protect farmland. The policy of the Natural Resources Conservation Service (NRCS) is to protect significant agricultural lands from conversions that are irreversible and that result in the loss of essential food and environmental resources. The NRCS has developed criteria for assessing the efforts of Federal actions on converting farmland to other uses, including Farmland Conversion Impact Rating form AD-1066 that documents a site-scoring evaluation process to assess its potential agricultural value. In accordance with Section 1541 of the FPPA, the alternatives were reviewed for potential impacts on prime farmlands. The Prime Farmland map of Clayton County was consulted and indicates that Prime Farmlands are in the immediate vicinity of the Proposed Action. However, the U.S. Department of Agriculture states that proposed projects on land already in urban development or water storage are not subject to the provisions FPPA. (U.S. Department of Agriculture, 1986).

5.4.1 NO-ACTION

The No-action Alternative would have no significant effect on geology or soils. This alternative would not involve any construction, improvements, or ground disturbance to the project area.

5.4.2 PROPOSED ACTION

The Proposed Action would have no significant impact to geology and soils. Construction activities would expose soil in the area proposed for the Elkader Lift Station and Sewer Pipelines. Best management practices would be implemented during and after construction to control erosion. This would include, but not be limited to, the use of silt fences during construction.

5.5 LAND USE AND PLANNING

The current land use for the city of Elkader includes developed land (residential and commercial), street, highway, and agricultural lands. The proposed site of the Elkader Lift Station is currently a vacant parcel of land that two residential houses were located on 101 and 103 Bronson Street. Directly east of the site is new construction of a level system for the Turkey River. Immediately west of the subject site is scattered residences and vacant land. The city of Elkader's land use and zoning regulations are administered and enforced by the Mayor and City Council. The proposed location of the new lift station is currently owned by the city and is zoned for residential use. The Turkey River is north of the site and residential housing is to the south.

5.5.1 NO-ACTION

The No-action Alternative would have no significant effect on land use and planning. This alternative would not involve any construction, improvements, or ground disturbance to the project.

5.5.2 PROPOSED ACTION

Land required for the Proposed Action would involve property already owned by the City of Elkader and would be located at a site that was previously used as the residential homes. Approximately .75 acres of land was purchased for use as the Elkader Lift Station. The land is currently vacant and is zone residential.

5.6 NOISE

The Noise Control Act was enacted in 1972 (P.L. 92-574). Inadequately controlled noise presents a growing danger to the health and welfare of the nation's population. The major sources of noise include transportation vehicles and equipment, machinery, appliances, other products in commerce, climate, and recreation. Sounds, which disrupt normal activities or otherwise diminish the quality of the environment, are designated as noise. Noise can be stationary or transient, intermittent or continuous.

5.6.1 NO-ACTION

The No-action Alternative would not affect noise levels within the project area or the surrounding community. No construction activities would occur with the selection of the No-action Alternative.

5.6.2 PROPOSED ACTION

The Proposed Action would increase the levels of noise in the vicinity of the project area during the construction of the Elkader Lift Station and Sewer Pipelines. The proposed project would require approximately 2 months of construction and the use of some heavy equipment including a bulldozer, scraper, and backhoe. These noise levels would not be significant, as the increased level of sound would be similar to the increased construction activities occurring in the local area. No sensitive noise receptor (i.e., schools, etc) are located near the project area. It is anticipated that all construction activities would occur during daylight hours. Based upon this information, there would be minimal impacts to noise due to the implementation of the Proposed Action.

5.7 SOCIOECONOMIC ISSUES

Elkader is an active city of about 1,600 persons located in the Turkey River Valley. Elkader is the hub of a large trade area which includes one of the most prosperous and diversified farming sectors in the Midwest. It is near the center of 470,000 Clayton County farm acres. (City of Elkader website)

Elkader is the seat of Clayton County with three state highways; lowa 13, 56, and 128 enter the city from the north, east, south and west. Two county paved highways connect Elkader with surrounding county communities. As of the census [3] of 2000, there were 1,465 people, 645 households, and 403 families residing in the city. The population density was 1,049.0 people per square mile (404.0/km²). There were 693 housing units at an average density of 496.2/sq mi (191.1/km²). The racial makeup of the city was 99.25% White, 0.20% African American, 0.07% Native American, and 0.48% from two or more races. Hispanic or Latino of any race was 0.07% of the population.

There were 645 households out of which 23.6% had children under the age of 18 living with them, 53.8% were married couples living together, 6.5% had a female householder with no husband present, and 37.4% were non-families. 35.0% of all households were made up of individuals and 20.9% had someone living alone who was 65 years of age or older. The average household size was 2.16 and the average family size was 2.77.

In the city the population was spread out with 20.6% under the age of 18, 5.1% from 18 to 24, 23.5% from 25 to 44, 23.8% from 45 to 64, and 27.0% who were 65 years of age or older. The median age was 45 years. For every 100 females there were 80.4 males. For every 100 females age 18 and over, there were 77.6 males.

The median income for a household in the city was \$32,857, and the median income for a family was \$41,830. About 2.7% of families and 5.2% of the population were below the poverty line, including 4.3% of those under age 18 and 8.5% of those ages 65 or over. (U.S. Department of Commerce, 2000)

Table 5-2: Population Statistics 1980 though 2000

Jurisdiction	1980	1990	2000
lowa	2,913,808	2,776,755	2,926,324
Clayton County	21,098	19,054	18,678
City of Elkader	1,688	1,454	1,465

5.7.1 NO-ACTION

The No-action Alternative would have no impact to the socioeconomics of the local area because no construction activity would occur.

5.7.2 PROPOSED ACTION

Activities associated with the implementation of the Proposed Action would be considered a positive impact with an influx of construction workers needed for the approximately 2 months of construction activities. Construction personnel would provide short-term benefits to the local businesses, which would include the purchase of food, gas, and other services. The Proposed Action will also complete a need service for the Elkader residents and businesses on the west side of the Turkey River. The Proposed Action would not displace or adversely affect any nearby residents during the construction phase.

5.7.3 EXECUTIVE ORDER 12898, ENVIRONMENTAL JUSTICE

On February 11, 1994, President Clinton signed Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The EO directs Federal agencies to focus attention on human health and environmental conditions in minority and/or low-income communities. Its goals are to achieve environmental justice, fostering non-discrimination in Federal programs that substantially affect human health or the environment, and to give minority or low-income communities greater opportunities for public participation in and access to public information on matter relating to human health and the environment. Also identified and addressed, as appropriate, are disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States. Based on the findings in this EA, implementation of any of the proposed alternatives would have little likelihood of having disproportionate impacts on any low-income or minority groups. After construction, the improvements created by the proposed action would be beneficial and would not cause adverse environmental or economic impacts specific to any groups or individuals.

5.8 TRANSPORTATION

Currently, the project site does not interfere with normal traffic circulation in the City of Elkader.

5.8.1 NO-ACTION

With the No-action Alternative, the demolished Elkader Lift Station would not be repaired and there would be no impact to the existing traffic and circulation for the city of Elkader because there would not be any construction activities.

5.8.2 PROPOSED ACTION

The construction of the Elkader Lift Station and Sewer Pipelines would temporarily disrupt the traffic flow on Bronson Street during the approximately 2-month construction period. Local traffic would need to slow down or stop to accommodate equipment, such as bulldozers, backhoes, and grazers, used during construction. Flagmen and possibly escort vehicles would be utilized to sustain traffic flow while maintaining safe working and traffic conditions. This activity would have a short-term effect on the level of service for the connecting roads during the construction period. This level of service would, however, be expected to return to normal at the completion of the project.

5.9 WATER RESOURCES

The U.S. Army Corps of Engineers (USACE) is responsible for permitting and enforcement functions dealing with building in U.S. waters and discharging dredged or fill material into U.S. waters. USACE regulations for building or working in navigable waters of the United States are authorized by the Rivers and Harbors Act of 1899. These regulations often go hand in hand with Section 404 of the Clean Water Act, which establishes the USACE permit program for discharging dredged or fill material. The regulations are often used together because building in navigable waters of the United States also constitutes discharging dredged or fill material into water of the United States. In addition to regulating construction or work being done in navigable water of the United States, USACE regulates discharging into wetlands through the Section 404 permit program (see section 5.10.1, Wetlands).

5.9.1 WETLANDS

The Clean Water Act, as amended in 1977, established the basic framework for regulating discharges of pollutants into the waters of the United States. The USACE regulates the discharge of dredged or filled material into waters of the U.S., including wetlands, pursuant to Section 404 of the Clean Water Act. Additionally, Executive Order (EO) 11990 (Protection of Wetlands) requires federal agencies to avoid, to the extent possible, adverse impact of wetlands.

5.9.1.1 NO-ACTION

The No-action Alternative would not affect wetlands. No construction activities would occur with the selection of the No-action Alternative.

5.9.1.2 PROPOSED PLAN

A review of the National Wetlands Inventory Map indicates no wetlands are located on or immediately adjacent to the proposed project site. A wetland delineation was conducted by the 1987 *Corps of Engineers Wetlands Delineation Manual*. The Corps manual requires the presence of all three parameters (greater than 50% dominance of hydrophytic vegetation, evidence of hydric soils, and presence of hydrologic indicators) for an area to be considered a wetland.

The Contractor would implement specific best management practices to reduce or eliminate runoff impacts during proposed construction activities of the Proposed Action and to reduce the potential for soil erosion after construction, regardless of whether a National Pollutant Discharge Elimination System (NPDES) Permit or a waiver from the permit requirement is secured (U.S. Department of Homeland Security, 2007). In addition, .if required in consultation with the USACE a Section 404 permit would be obtained.

5.9.2 FLOODPLAINS

The intent of EO 11988 is to require Federal agencies to minimize the occupancy and modifications of floodplains. Specifically, EO 11988 prohibits Federal agencies from funding construction in 100-year floodplain (or 500-year floodplain for critical facility) unless there are no practical alternatives. Based on the findings in this EA the location of the Elkader Lift Station and Sewer Pipeline is not located on an identified floodplain. The city of Elkader does not participate in the National Flood Insurance Program.

5.10 CUMULATIVE IMPACTS

EO 11988 (Floodplain Management) requires that a Federal agency avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. FEMA uses Flood Insurance Rate Maps (FIRMs) to identify the regulatory 100-year floodplain for the National Flood Insurance Program (NFIP). Clayton County, Iowa is a participant in the NFIP.

The FIRMs for Iowa have been updated since the 1993 Flood Disaster to more accurately delineate flood zones – these FIRMS are preliminary and are currently under review by FEMA.

Consistent with EO 11988, FIRMs were examined during the preparation of this EA. Site information is as follows:

FIRM Panel # 1900730001C

Dated 07/16/1996,

Zone AE (1% Annual Chance Flood)

100-year floodplain, within an area that includes the channel of a river or other watercourse; Base Flood Elevations determined.

5.11 COORDINATION AND PERMITS

Local agencies were contacted and consulted during the preparation of this EA. The following coordination and/or permits may be required before implementation of the alternatives identified below.

5.11.1 NO-ACTION

No-action Alternative is not a viable alternative for the Lift Station.

5.11.2 PROPOSED ACTION

- 1. In the event that threatened or endangered species are observed in the project area, the FEMA Regional Environmental Officer shall request a Section 7 consultation with the USFWS (Section 5.2.1.2, Protected Species and Habitats).
- 2. If cultural resources (particularly human remains) are unexpectedly discovered during construction, activities would cease in the immediate area and the lowa State Historic

- Preservation Officer and the FEMA Regional Environmental Officer would be notified before work would continue (section 5.3.1.2, Cultural Resources).
- 3. Best management practices as recommended by the lowa Department of Health would be implemented during and after construction to control erosion, with the selection of the Proposed Action (section 5.4.2, Geology and Soils).
- 4. A General NPDES Permit, or a waiver of the permit, could be required to be obtained from the lowa Department of Health and Environment and if required in consultation with the USACE a Section 404 permit would be obtained.

6. PARTIES CONSULTED AND REFERENCES

6.1 PARTIES CONSULTED

City of Elkader Jennifer K. Cowsert City Administrator/Clerk Clayton County

6.2 REFERENCES

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- United States Government. 2008. *Code of Federal Regulations, Stafford Act, Title 44, Part 10.*October 1.
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7. LIST OF PREPARERS

7.1 GOVERNMENT PREPARERS

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7.2 CONTRACTOR PREPARERS

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APPENDIX

FIGURE 1: Site Plan for Proposed Lift Station

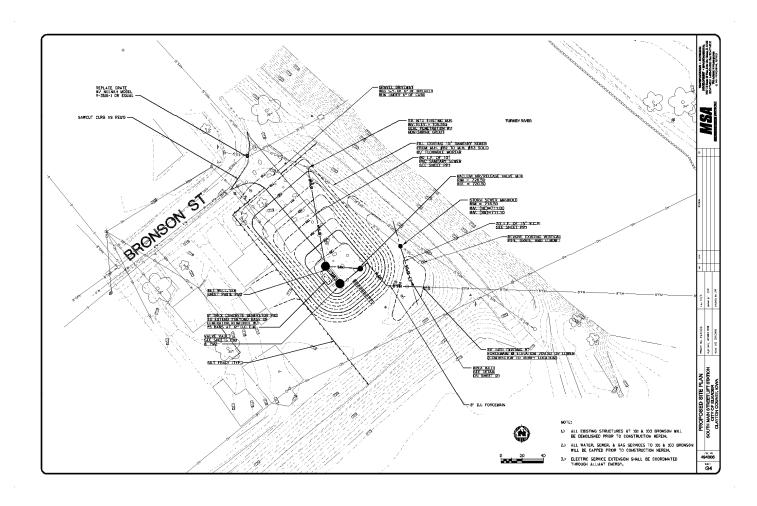


FIGURE 2: Proposed Site for the Lift Station and Pipeline Connections

